

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 20 JAN 2005

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Applicant's or agent's file reference 3212-01-WO	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/US2004/003572	International filing date (day/month/year) 04.02.2004	Priority date (day/month/year) 07.02.2003	
International Patent Classification (IPC) or national classification and IPC C10M169/00			
Applicant THE LUBRIZOL CORPORATION et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 02.09.2004		Date of completion of this report 18.01.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Kazemi, P Telephone No. +49 89 2399-8592	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/US2004/003572

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-7 as originally filed

Claims, Numbers

1-33 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 18-29

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 18-29

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3,17,33
	No: Claims	1,2,4-16,30-32
Inventive step (IS)	Yes: Claims	
	No: Claims	3,17,33
Industrial applicability (IA)	Yes: Claims	1-17,30-33
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

and /or

2. Non-written disclosures (Rule 70.9)

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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Re Item III.

The dependent claims 18-29 are unclear (they refer to claims 19 and 28), the reference is clearly in error, but it is not possible to know what the correct reference should be. Since the claims lack a counterpart in the description, i.e. are not supported by the description under Article 6 PCT, it has not been possible to carry out a meaningful search and there is thus no need to examine these claims.

Re Item V.

1. The following documents are referred to in this communication:

D1 : US 5 037 566
D2 : US 4 705 571
D3 : US 5 050 959
D4 : US-A-5 276 757
D5 : WO 01/85879
D6 : US-A-4 701 016
D7 : EP-A-0 889 343
D8 : DE-A-36 22 211

The passages cited in the International Search Report are referred to.

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1, 2, 4-16, 30-32 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a stable dispersion of synthetic lubricating fluid (PAO), PTFE, amine phosphate (antioxidant and wear inhibitor), polybutene, polypropylene glycol and hydrophobic fumed silica. The subject-matter of claims 1, 2, 4-14, 30 and 32 is not new over D1.

Document D2 discloses a filling composition for optical cable (light waveguide) comprising polyglycol or polyolefin, fumed silica, hydrogen containing silane compound and antioxidant. The subject-matter of claims 1, 2, 6-9, 11, 14-16, 30

and 31 is not novel over D2.

Document D3 discloses a fibre optic lubricant comprising polybutene, hydrophobic silica, PTFE, amine phosphate and PEG. Amine phosphate can be considered as an antioxidant (see D1). The subject-matter of claims 1, 2, 4-12, and 14 is not novel over D3.

3. The subject-matter of claims 3, 17 and 33 being novel over the said citations does not involve an inventive step therefore not meeting the requirements of Article 33(3) PCT.

Claim 3 concerns an embodiment comprising hydrophilic silica in addition to synthetic oil, coupling agent and antioxidant.

Claim 17 concerns an embodiment comprising as base oil polydecene and polybutene, hydrophilic silica and polyglycol along with antioxidant.

Claim 33 concerns an embodiment comprising a synthetic oil, fumed silica, antioxidant, coupling agent and a styrene butadiene polymer.

The following documents disclose some of these features in combination:

Document D4 discloses an optical fibre cable filling composition comprising base oil (polydecene and polybutene), fumed silica (hydrophobic) and antioxidant. No glycol or coupling agent is referred to.

Document D5 discloses synthetic lubricant for food processing comprising hydrogenated PAO, styrene-EP-copolymer, petroleum hydrocarbons, fumed silica, propylene glycol and PTFE. No antioxidant is used.

D6 discloses a grease as a cable filling material comprising a base oil, hydrophobic or hydrophilic silica, styrene rubber and antioxidant. No glycol or coupling agent is used (the document is cited in the application).

D7 discloses a filling for optical fibre cable comprising two hydrocarbons (e.g. PAOs), Kraton copolymer, silica (hydrophilic and/or hydrophobic) and antioxidant. No reference is made to polyglycol or coupling agent.

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D8 discloses a cable filling material comprising polyglycol as base oil, hydrophilic and/or hydrophobic silica and antioxidant. No further coupling agent is used, probably not necessary.

As can be seen the most of the documents are concerned with similar problems, ie. greases for optical cables and any of these documents can be taken as the closest prior art.

Although the compatibility with polypropylene has been cited as a problem underlying the invention, there is no data or no example in the application as filed to show that the compositions according to claims 3, 17 or 33 would provide any advantages over the compositions of the prior art (D1-D8) or slightly modified compositions that are possible to arrive at merely by trial and error or by combining the teachings in an obvious way.

Re Item VI.

The cited document WO03/085036 published on 16.10.2003 (claiming priority date of 01.04.2002, having a filing date of 25.03.2003) does not constitute prior art under Rule 64.1 PCT, but it discloses subject-matter that is relevant for claims 1, 2, 4-9, 11-16 and 30-33. The validity of the priority claim has not been checked.

Re Item VII.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the cited documents (except D6) is not mentioned in the description, nor are these documents identified therein.